

Amendments to the Specification

Please replace the paragraph beginning on pg. 2, line 13, with the following paragraph:

Wireless Wide Area Network (WWAN) technologies allow communication to a geographically dispersed Wide Area Network (WAN). WWAN technologies use various devices (e.g., telephone lines, satellite dishes, and radio waves) to service an area broader than that which can be covered by a WLAN. WWAN technologies are typically used in cellular telecommunications and may include, for example: Global System for Mobile communication (GSM), a digital cell phone service widely used in Europe and other parts of the world; Personal Communications Services (PCS), a digital cell phone service widely used in the United States; Enhanced Data GSM Environment (EDGE), a faster version of the GSM service providing broadband access to mobile phones and computers; General Packet Radio Services (GPRS), a packet-based wireless communication service providing broadband access to mobile phones and computers; and Universal Mobile Telecommunications Service (UMTS), a packet-based wireless communication service providing a consistent set of broadband services to mobile phone and computer users, no matter where they are located in the world.

Please replace the paragraph beginning on pg. 19, line 16, with the following paragraph:

Though not specifically illustrated in FIG. 2, radio modules 210 and 220 may include one or more components in addition to those shown. For example, radio modules 210 and 220 may include one or more of the following: pre-selectors, pre-detectors, front-end amplifiers, mixers, filters, local oscillators, demodulators, and tuners, among other things. In some embodiments, one or more components of radio modules 210 and 220 may be integrated within tablet computer 200. If the antenna is separated from the radio module, for example, the antenna may be attached to (or formed as a part of) the external surface of computer 200. The antenna may then be coupled by a short lead to a radio module residing within computer 200. In some cases, it may be possible to integrate all radio module components within computer 200, if at least a portion of the external surface is formed from a substantially non-conductive material (i.e., a material that would not significantly impede radio operation). In other embodiments, one or more components of radio modules 210 and 220 may be detachably coupled to tablet computer 200. For example, one or more components of radio modules 210 and 220 may be integrated onto an expansion card (e.g., a PCI card) or some other removable module, which

can be “plugged in” to an external port of computer 200. Regardless of whether radio modules 210 and 220 are fixedly attached to external surface 230, integrated within tablet computer 200, or detachably coupled to tablet computer 200, consideration should be made as to the arrangement of the radio modules relative to one another. Such arrangement will be described in more detail below.

Please replace the paragraph beginning on pg. 27, line 16, with the following paragraph:

The maximum levels of radiated energy (reference numerals 261, 263 and 265) may also occur at various locations along the external surface, where the various locations are substantially equal to:

$$R_{MAX} = m \left(\frac{\lambda}{4} \right) \quad [\text{EQ. 3}]$$

where $m = [1, 2, 3, \dots]$ and R_{MAX} is a distance measured from a transmitting portion of radio module 210. In terms of frequency, the locations of ~~minimum~~ maximum radiated energy may occur at about $\pi/2$, $3\pi/2$, $5\pi/2$ and so on.

Please replace the paragraph beginning on pg. 37, line 7, with the following paragraph:

In FIGS. 7F-H, the height of vertical elements 720' is decreased (and thus, the inductance there through increased) to reduce the overall height (h_T) of apparatus 700'. This may be achieved, for example, by shortening straight section 726' and increasing the curvature of bent sections 722', 724' within each of the vertical elements. In one embodiment, the radius (r_1) of upper bent section 722' may be increased to about 0.7 mm, the radius (r_2) of lower bent section 724' may be increased to about 0.15 mm, and the length (l_v) of straight section 726' may be decreased to about 0.85 mm. As a result, the overall height (h_T) of apparatus 700' may be decreased to about 1.7 mm. In some cases, the outer edges 728' of apparatus 700' may be rounded to improve manufacturability, as shown in FIG. 7F. Other modifications not disclosed herein can be made to apparatus 700' to accommodate any carrier frequency, apparatus dimension and/or manufacturing process.

Please replace the paragraph beginning on pg. 44, line 19, with the following paragraph:

FIGS. 10C, 11C, and 12C illustrate the standing wave patterns (1050, 1150 and 1250) that may be produced by the apparatuses (1000, 1100 and 1200) when activated by radiated energy from the incoming electromagnetic wave. Though each of the standing wave patterns resonates at (or near) the carrier frequency of the incoming wave, constructive and destructive interference between the standing wave patterns functions to scatter the incoming wave by modulating the radiated components into a wide range of band-gap frequencies. Though ~~only~~ FIG. 9 shows a typical frequency response for apparatus 700' only, similar frequency responses may be demonstrated for apparatuses 1000, 1100 and 1200.